

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-30. (Canceled)

31. (Previously Presented) A method, comprising:
receiving a call request from a user to execute an object;
determining an access authority for the user;
acquiring an object access authority set for the object indicating access authorities for methods called by the object;
comparing the user access authority and the object access authority set to determine whether the user access authority permits access to the methods called by the object; and
searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object.

32. (Previously Presented) The method of claim 31, wherein the call request is received over a network, and wherein the execution results are transmitted over the network and wherein the call request with respect to the object comprises a request for Web services.

33. (Previously Presented) The method of claim 31, further comprising:
transmitting the execution results for the previous execution of the object prior to executing the call request with respect to the object in response to determining that the storage section stores the execution results for the previous execution of the object subject to the call request.

34. (Previously Presented) The method of claim 31, further comprising:
passing the call request to an object executor in response to determining that the storage section does not store execution results for the previous execution of the object subject to the call request.

35-39. (Canceled)

40. (Previously Presented) The method of claim 31, further comprising:
determining methods called by the object;
determining an access authority for each determined method;
generating the object access authority set to comprise the determined access authorities of the determined methods, wherein the object access authority set indicates access authorities needed to execute the determined methods.

41. (Previously Presented) The method of claim 40, wherein determining the access authority for each determined method calling additional methods comprises:
determining the access authorities of the additional methods called by the method, wherein the object access authority set for the method additionally includes the determined access authorities of the additional methods called by the method.

42. (Previously Presented) The method of claim 40, wherein access to the execution results is not granted to the user if the access authority for one determined method is unknown.

43. (Previously Presented) The method of claim 42, wherein the object is executed even if access to the execution results is not granted.

44. (Previously Presented) The method of claim 34, further comprising:
storing execution results from the object executor in response to executing the object of the call request with the access authority set for the object and an object name.

45. (Previously Presented) The method of claim 34, further comprising:
returning the execution results to the user having user access authority permitting access to the object.

46. (Previously Presented) The method of claim 31, further comprising:
receiving a subsequent call request for the object from the user;

returning the execution results to the user in response to determining that the execution results are associated with the user without comparing the user access control to the object access authority.

47. (Previously Presented) A system for providing services, comprising:
a computer;
a storage section storing execution results for a previous execution of objects; code executed by the computer to perform operations, the operations comprising:
receiving a call request from a user to execute an object;
determining an access authority for the user;
acquiring an object access authority set for the object indicating access authorities for methods called by the object;
comparing the user access authority and the object access authority set to determine whether the user access authority permits access to the methods called by the object; and
searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object.

48. (Previously Presented) The system of claim 47, wherein the operations further comprise:
transmitting the execution results for the previous execution of the object prior to executing the call request with respect to the object in response to determining that the storage section stores the execution results for the previous execution of the object subject to the call request.

49. (Previously Presented) The system of claim 47, wherein the operations further comprise:
passing the call request to an object executor in response to determining that the storage section does not store execution results for the previous execution of the object subject to the call request.

50. (Previously Presented) The system of claim 47, wherein the operations further comprise:

- determining methods called by the object;
- determining an access authority for each determined method;
- generating the object access authority set to comprise the determined access authorities of the determined methods, wherein the object access authority set indicates access authorities needed to execute the determined methods.

51. (Previously Presented) The system of claim 50, wherein determining the access authority for each determined method calling additional methods comprises:

- determining the access authorities of the additional methods called by the method, wherein the object access authority set for the method additionally includes the determined access authorities of the additional methods called by the method.

52. (Previously Presented) The system of claim 50, wherein access to the execution results is not granted to the user if the access authority for one determined method is unknown.

53. (Previously Presented) The system of claim 52, wherein the object is executed even if access to the execution results is not granted.

54. (Previously Presented) The system of claim 49, wherein the operations further comprise:

- storing execution results from the object executor in response to executing the object of the call request with the access authority set for the object and an object name.

55. (Previously Presented) The system of claim 47, wherein the operations further comprise:

- receiving a subsequent call request for the object from the user; and
- returning the execution results to the user in response to determining that the execution results are associated with the user without comparing the user access control to the object access authority.

56. (Previously Presented) A computer readable storage medium including instructions that when executed cause a computer to interact with a storage section and to perform operations comprising:

- receiving a call request from a user to execute an object;
- determining an access authority for the user;
- acquiring an object access authority set for the object indicating access authorities for methods called by the object;
- comparing the user access authority and the object access authority set to determine whether the user access authority permits access to the methods called by the object; and
- searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object.

57. (Previously Presented) The computer readable storage medium of claim 56, further comprising:

- transmitting the execution results for the previous execution of the object prior to executing the call request with respect to the object in response to determining that the storage section stores the execution results for the previous execution of the object subject to the call request.

58. (Previously Presented) The computer readable storage medium of claim 56, further comprising:

- passing the call request to an object executor in response to determining that the storage section does not store execution results for the previous execution of the object subject to the call request.

59. (Previously Presented) The computer readable storage medium of claim 56, further comprising:

- determining methods called by the object;
- determining an access authority for each determined method;

generating the object access authority set to comprise the determined access authorities of the determined methods, wherein the object access authority set indicates access authorities needed to execute the determined methods.

60. (Previously Presented) The computer readable storage medium of claim 59, wherein determining the access authority for each determined method calling additional methods comprises:

determining the access authorities of the additional methods called by the method, wherein the object access authority set for the method additionally includes the determined access authorities of the additional methods called by the method.

61. (Previously Presented) The computer readable storage medium of claim 59, wherein access to the execution results is not granted to the user if the access authority for one determined method is unknown.

62. (Previously Presented) The computer readable storage medium of claim 61, wherein the object is executed even if access to the execution results is not granted.

63. (Previously Presented) The computer readable storage medium of claim 58, further comprising:

storing execution results from the object executor in response to executing the object of the call request with the access authority set for the object and an object name.

64. (Previously Presented) The computer readable storage medium of claim 56, further comprising:

receiving a subsequent call request for the object from the user;
returning the execution results to the user in response to determining that the execution results are associated with the user without comparing the user access control to the object access authority.